

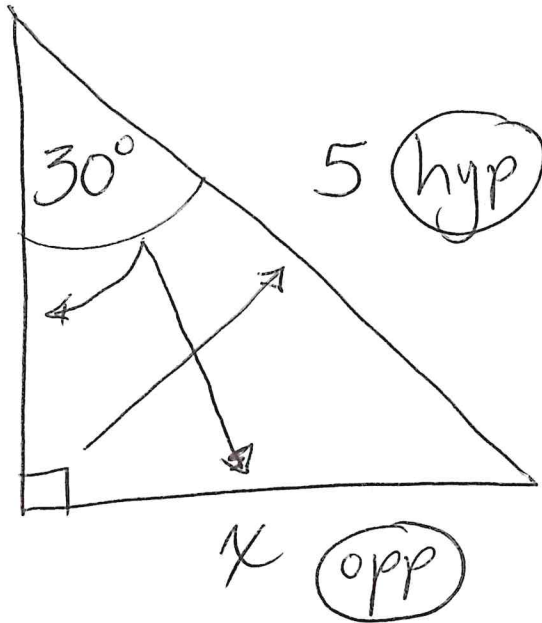
1/5/2022

Lessons 30/31

Sine, Cosine, & Tangent Angles

ie 1

~~adj~~



Find side length

$$x =$$

SOH

~~CAH~~

~~TOA~~

Steps:

① Determine Sine, Cosine, or Tangent

$$\underline{\sin 30^\circ} = \frac{O}{H} = \frac{x}{5}$$

② Write as a proportion

$$\sin 30^\circ = \frac{x}{5}$$

③ Find decimal value of $\sin 30^\circ$

Table: = $\frac{0.5}{1}$

calc: $\sin(30^\circ) = \frac{0.5}{1}$
buttons

④ Solve for x: cross multiply

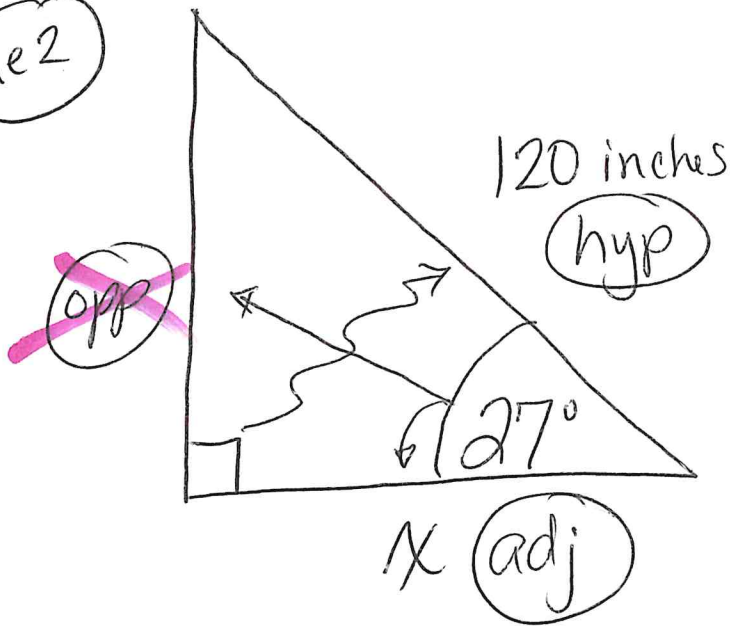
$$\frac{0.5}{1} = \frac{x}{5}$$

$$2.5 = x$$

Wp
Love
math!

②

ie 2



find X: _____

~~SOH~~
CAH

~~TOA~~

$$\underline{\cos 27^\circ} = \frac{\frac{A}{H}}{\text{Formula}} = \frac{\frac{X}{120}}{\text{fractions}}$$

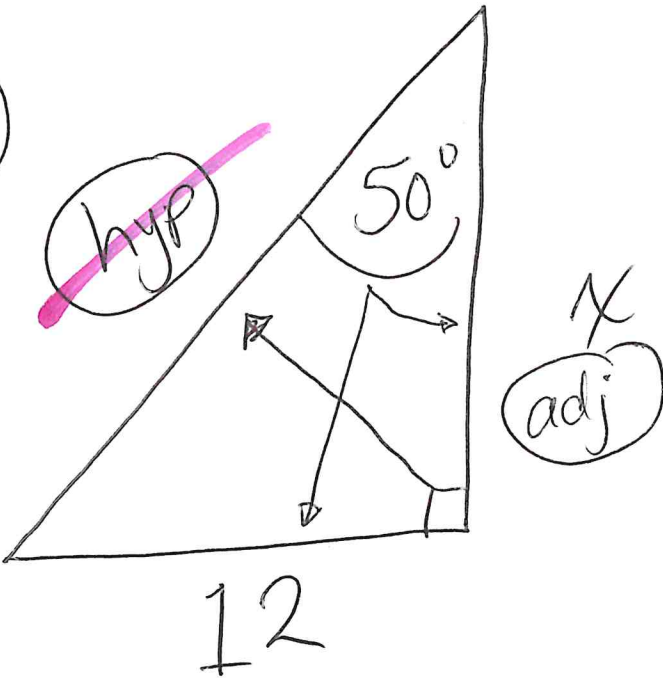
$$\frac{\cos 27^\circ}{1} = \frac{X \text{ (A)}}{120 \text{ (H)}}$$

$$\frac{0.8910}{1} = \frac{X}{120}$$

$$106.92 = X$$

wp
Love
Math!

jr3



Find
 $X = \underline{10.06}$

~~SOH~~
~~CAH~~
 TOA

$\tan 50^\circ = \frac{12}{x}$

$2x = 6$
 $\div 2 \quad \div 2$
 $x = 3$

$\frac{1.1918}{1} = \frac{12}{x}$

\downarrow

$\frac{1.1918 \times x}{\cancel{1.1918}} = \frac{12}{\cancel{1.1918}}$

$x = 10.06$

$12 \div 1.1918$

Wp
 Love
 math!

Calc

Degree \rightarrow decimal
sin, cos, tan ~~(degree)~~ (degree)

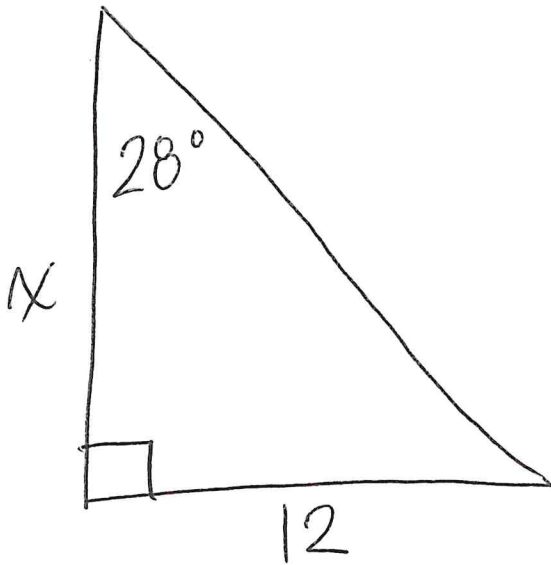
decimal \rightarrow degree
2nd sin, cos, tan (decimal)

Hwk: Lessons 30/31
#1-3

Name: _____

HR: _____

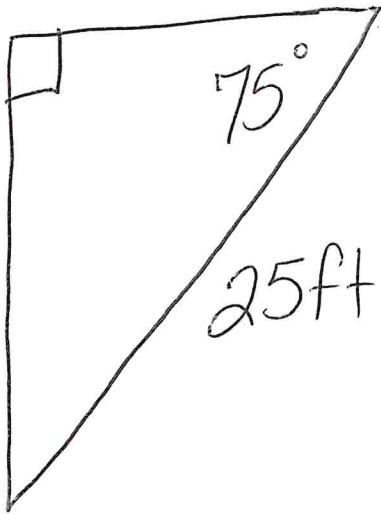
1) Solve for x



$x =$ _____

SOH
CAH
TOA

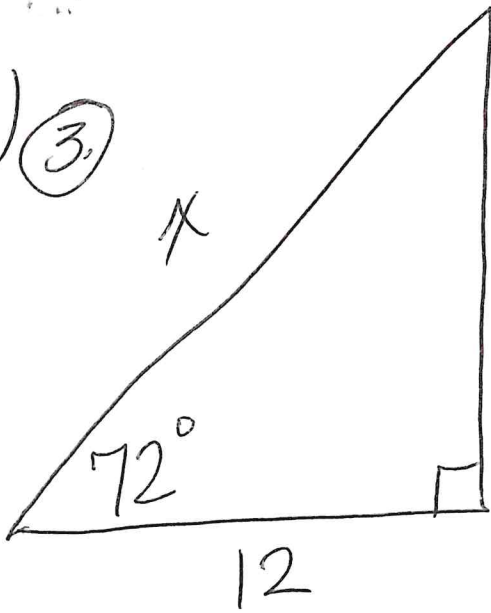
2.)
2.
X



Find $X =$ _____

SOH
CAH
TOA

3.) (3)



Find

$x =$

SOH
CAH
TOA

(3)